Claims

1.   (Previously presented) In a transform-based audio encoder, a method of dynamically selecting between joint channel coding and independent channel coding of a multi-channel input audio signal, the method comprising:

for a portion of the multi-channel input audio signal comprising individual input channels, measuring disparity between excitation patterns of the individual input channels of the multi-channel input audio signal;

determining whether to encode the portion using joint channel coding or independent channel coding based at least in part on the measured disparity between excitation patterns of the individual input channels; and

encoding the portion using the determined joint channel coding or independent channel coding.

2.   (Previously presented) The method of claim 1 further comprising:

for the portion of the multi-channel input audio signal comprising individual input channels, measuring energy separation between coding channels for joint channel coding and those for independent channel coding; and

determining to encode the portion using joint channel coding or independent channel coding based also at least in part on the measured energy separation between said coding channels for joint channel coding and for independent channel coding.

3.   (Previously presented) The method of claim 1 wherein measuring the disparity between excitation patterns of the individual input channels comprises determining a ratio of aggregate excitation measures of the individual input channels of the multi-channel input audio signal.

4.   (Previously presented) The method of claim 1 wherein measuring the disparity between excitation patterns of the individual input channels comprises determining a ratio of expected noise-to-excitation ratio measures of the individual input channels of the multi-channel input audio signal.

5.   (Previously presented) The method of claim 1 wherein said measuring and determining comprise:

determining a ratio of aggregate excitation measures of the individual input channels of the multi-channel input audio signal; and

determining not to encode the portion using joint channel coding if the ratio exceeds a threshold.

6.   (Previously presented) The method of claim 1 wherein said measuring and determining comprise:

determining a ratio of expected noise-to-excitation ratio measures of the individual input channels of the multi-channel input audio signal; and

determining not to encode the portion using joint channel coding if the ratio exceeds a threshold.

7.   (Previously presented) The method of claim 1 further comprising determining not to encode the portion using joint channel coding if a ratio of an excitation pattern-based measure of individual input channels of the multi-channel input audio signal exceeds a first threshold, and a smaller of the excitation pattern-based measures does not exceed a second threshold.

8.   (Original) The method of claim 1 wherein said method is performed as an open-loop process.

9.   (Currently Amended) ~~A data-carrying medium having a compressed audio stream produced by the~~ **The** method of claim 1 ~~carried thereon~~ **further comprising storing the encoded audio data**.

10.   (Previously presented) A transform-based audio encoder, comprising:

a multi-channel transformation component operative to perform a multi-channel transformation on multiple individual channels of a multi-channel audio input signal to produce joint coding channels;

a transform-based encoding component operative to encode multiple coding channels into a compressed data stream;

an excitation pattern disparity measuring component operative to produce a excitation pattern disparity measure of disparity in excitation patterns between individual input channels; and

a channel coding mode selecting component operative to select between a joint channel coding mode in which the transform-based encoding component encodes the joint coding channels into the compressed data stream and an independent channel coding mode in which the transform-based encoding component encodes the individual channels of the multi-channel audio input signal, the channel coding selection component basing said selection at least in part upon the excitation pattern disparity measure of disparity in excitation patterns between individual input channels.

11.   (Original) The transform-based audio encoder of claim 10 further comprising:

an channel energy separation measuring component operative to produce a channel energy separation measure of energy separation between the joint coding channels and the individual channels; and

the channel coding mode selecting component further basing said selection also at least in part on the channel energy separation measure.

12.   (Previously presented) The transform-based audio encoder of claim 10 wherein the excitation pattern disparity measuring component operates to produce the excitation pattern disparity measure as a ratio of aggregate excitation measures of the individual input channels of the multi-channel input audio signal.

13.   (Previously presented) The transform-based audio encoder of claim 10 wherein the excitation pattern disparity measuring component operates to produce the excitation pattern disparity measure as a ratio of expected noise-to-excitation ratio measures of the individual input channels of the multi-channel input audio signal.

14.   (Original) The transform-based audio encoder of claim 10 wherein the channel coding mode selecting component determines not to encode a portion of the multi-channel audio input signal with the joint channel coding mode if the excitation pattern disparity measure exceeds a threshold.

15.   (Previously presented) The transform-based audio encoder of claim 10 wherein the channel coding mode selecting component determines not to encode a portion of the multi-channel audio input signal with the joint channel coding mode if the excitation pattern disparity measure exceeds a minimum disparity threshold, and a smaller excitation pattern of the individual input channels exceeds a minimum excitation threshold.

16-36. (Canceled)